50% of the diet or a little less. The ideal figures would again be reduced, on the other hand, by allowing for the predations on gardens of animals, especially the pigs, which eat manioc and corn, the Guahibo Indians who allegedly steal sugar cane, and insect losses. Our figures, then, will be modified only a few units by the additional sources of foods. We may thus revise our population figure to between 100 and 105 (or, if a 15-year fallow period is assumed, the figure would be 75-80), figures which correspond to the Yaruro's own ideal of what a proper population for this area should be. If the population increased beyond this number of people, the Yaruro would have to exploit their gardens at a rate greater than the rate of land reconstitution, and also expand hunting, fishing, and gathering beyond the average long-term carrying capacity of the savanas and the rivers, thus reducing their potential productivity. Adding together the maximum populations supportable by these food resources, as well as by the recently introduced pigs, a figure approximating 125-150 persons might be reasonable for this particular territory. This gives a density of 2 persons per sq. mile, a characteristic figure for tropical forest tribes.[15]

If the population rose beyond this maximum capacity of the land-technology relationship, groups would either have to fission off, go on the warpath, regulate population by any of a number of internal institutions such as infanticide, or die either from extreme famines or from steady nutritional deficiency. Under present population conditions none of these is necessary, yet both fissioning and population regulation by contraception occur. Fissioning appears to be fostered by the search for settlement locations requiring minimum labor for maximum return and also to establish community authority under the person leading the fissioning group independent of that excercised by the community from which fissioning took place. Contraception appears to be a matter of choice revolving about maintaining a certain freedom from the cares of motherhood until such time as the marriage partners are reasonably convinced that the marriage is permanent. Indirectly, this contributes to the distribution of more effective female producers among the more effective male producers in the most productive areas, since a second marriage often involves shifting to a generally more effective husband whereas a shift to a less effective husband is scarcely to be found. Both fissioning and contraception, however, give evidence of techniques which were developed to handle man-food balance in happier days.

A number of formal characteristics of any ecology may permit us to deduce the form of society which would be expected on the basis of such characteristics. In so far as the ecological forms were to remain essentially unchanged over great periods of time, no changes in the forms of the social order attached to the ecological conditions would be expected. An internal equilibrium is maintained until such time as a dynamic imbalance occurs because of changes from internal or external sources. It is essential to examine to what extent the internal equilibrium prevents or fosters the occurence of dynamic imbalances in any particular ecological setting. We shall return to this question after the following itemization of Yaruro ecological forms.

[15] [For footnote see p. 43, category 116 -- Analyst]